

## **EXHIBIT C:**

PhoneFactor Infringement Claim Chart

(6,934,858 and 7,574,733)

## PhoneFactor Infringement Claim Chart

### Supporting Documentation in “*PhoneFactor Infringement Chart Reference Documents*”

- **Section 1** – PhoneFactor Functional Diagram (From Remote Access VPNs datasheet)
- **Section 2** – PhoneFactor Remote Access VPNs Datasheet  
<http://www.phonefactor.com/solutions/ssl-vpn-authentication>
- **Section 3** – PhoneFactor Standard Edition Datasheet  
<http://www.phonefactor.com/products/phonefactor-standard>
- **Section 4** – PhoneFactor Home Page  
<http://www.phonefactor.com/>
- **Section 5** – The Authentication Revolution: Phones Become the Leading Multi-Factor Authentication Device. PhoneFactor Whitepaper
- **Section 6** – PhoneFactor: Phone-Based Two-Factor Authentication. PhoneFactor Whitepaper
- **Section 7 – PhoneFactor SMS (Text) Authentication Datasheet**  
<http://www.phonefactor.com/products/sms-text-authentication>
- **Section 8** – Comparing PhoneFactor to Other SMS Authentication Solutions Datasheet  
<http://www.phonefactor.com/sms-authentication>

### Accused Products:

- **PhoneFactor Free, Standard, Extended, Transaction Verification, Phone Verification, PhoneFactor SMS (Text) Authentication Addition to Extended Edition**

**6,934,858:** SYSTEM AND METHOD OF USING THE PUBLIC SWITCHED TELEPHONE NETWORK IN PROVIDING AUTHENTICATION OR AUTHORIZATION FOR ONLINE TRANSACTIONS

<b>App No:</b> 09/737,254	<b>Priority from:</b> 60/170,808	<b>Inventor:</b> Woodhill	
<b>File Date:</b> 12/13/2000	<b>Priority date:</b> 12/15/1999	<b>Issue Date:</b> 8/23/2005	<b>Exp. Date:</b> 6/15/2023

Claim	Found in Accused Products?
<b>20.</b> A system comprising:	
a first communication path	Yes. Section 1: A communication path (callout “B”)
for enabling a user to access at least one of a <u>source</u> of	Yes. Section 1: User (callout “A”) accesses a source (callout “C”) which may include a VPN Login, website Login, or Citrix Login, in order to access a product or service.

a selected product,	Yes. The software product is available to the user after a successful login
a selected service;	Yes. The software service is available to the user after a successful login
and a selected functional capability;	<p>Yes. Section 5: ( "The Authentication Revolution: Phones Become the Leading Multi-Factor Authentication Device" PhoneFactor Whitepaper)</p> <p>"PhoneFactor offers instant integration with a wide range of applications, including all leading remote access VPN solutions, single sign-on systems, cloud applications, online banking, and websites as well as custom applications. A number of integration options enable rapid implementation and maximum flexibility, including:</p> <ul style="list-style-type: none"> <li>• Built-in support for Citrix, Tivoli, Cisco VPNs, Outlook Web Access, Terminal Services and IIS websites among others</li> <li>• Web plug-ins for Java, .Net, PHP, Perl, and Ruby or a web services SDK</li> <li>• Universal Web Gateway, which adds an authentication layer to any website without requiring that the website be modified"</li> </ul> <p>(at page 6)</p>
and	
a second, different communication path	<p>Yes. Section 1: A different communication path is described together (callouts D1, D2, and D3) between the Source (callout "C") and user (callout "A") which includes SSL connections to the PhoneFactor service and the phone network.</p> <p>Section 4: (<a href="http://www.PhoneFactor.com">www.PhoneFactor.com</a> home page) PhoneFactor uses "100% Out-of-Band Security" which necessarily requires a different communication path from the first path</p>
for enabling the use, in response to communications on the first path,	Yes. Section 4: ( <a href="http://www.Phonefactor.com">www.Phonefactor.com</a> home page) in the first path, the user "logs in" via the terminal (callout "A"), or in some other way interacts with the source.
to respond to an inquiry initiated by the source	Yes. Section 5: "If the username and password are correct, an SSL request is sent to the PhoneFactor Service, which is housed in one of PhoneFactor's data centers around the world." (at page 7)
using a predetermined station coupled to the second path and associated with the user.	<p>Yes. Section 5: "The PhoneFactor Service places an automated phone call, sends a text message, or pushes a notification the PhoneFactor App on the user's mobile device and processes the results." (at page 7)</p> <p>Section 4: (callout "B")</p>
<b>21. A system as in claim 20 wherein</b>	

the first communication path is established intermittently	Yes. Section 1: An Internet connection is used (callout "B") where the path taken from the source to the device is variable.
by the user via a publicly accessible electronic packet switching network.	Yes. Section 1: An Internet connection is used (callout "B").
<b>22. A system as in claim 20 wherein</b>	
the second communication path is established intermittently by the source	Yes. Section 1: PhoneFactor integrates with the source to initiate a phone call, text message, or other form of message down the second communication path to the user (callouts "D1", "D2", D3").
via a different, <u>publicly accessible switched network</u> .	Yes. Section 1: A different communication path (callouts "D1", "D2", D3") between the Source (callout "C") and user (callout "A"), which includes SSL connections to the PhoneFactor service and the phone network.
<b>23. A system as in claim 21 wherein</b>	
the second communication path is established intermittently by the source via a different, publicly accessible voice network.	<p>Yes. Section 1: The source (callout "C") through communication with PhoneFactor (callouts "D1", "D2") establishes a communication path (callout "D3" using a publicly accessible voice network.</p> <p>Section 3: (PhoneFactor Standard Data Sheet) "PhoneFactor can reach users wherever they are with support for direct dial to any home, cell, or work number as well as corporate phone menus for users with extensions. If a user can't be reached at their primary number, the system can automatically dial the user's alternate phone number."</p>
<b>24. A system as in claim 20 wherein</b>	
the second communication path is implemented using a publicly available switched telephone network.	<p>Yes. Section 1: The source (callout "C") through communication with PhoneFactor (callouts "D1", "D2") establishes a communication path (callout "D3") using a publicly accessible voice network.</p> <p>Section 3: (PhoneFactor Standard Data Sheet) "PhoneFactor can reach users wherever they are with support for direct dial to any home, cell, or work number as well as corporate phone menus for users with extensions. If a user can't be reached at their primary number, the system can automatically dial the user's alternate phone number."</p>
<b>25. A system as in claim 20 wherein</b>	

the station comprises a telephone.	Yes. Section 3: (PhoneFactor Standard Data Sheet) "PhoneFactor can reach users wherever they are with support for direct dial to any home, cell, or work number as well as corporate phone menus for users with extensions. If a user can't be reached at their primary number, the system can automatically dial the user's alternate phone number."
<b>26. A system as in claim 25 wherein</b>	
the first communication path establishes a link to a site on a digital network	Yes. Section 1: User (callout "A") uses communication path (callout "B") which is linked to a site (callout "C"). The site may include a VPN Login, website Login, or Citrix Login.
associated with the source.	Yes. Section 1: User (callout "A") accesses a source (callout "C") which may include a VPN Login, website Login, or Citrix Login, in order to access a product or service.
<b>27. A system as in claim 26 wherein</b>	
the first communication path is established using an Internet service provider.	Yes. Section 1: The Internet connection (callout "B")
<b>28. A system as in claim 27 wherein</b>	
the user provides identifying information to the source using the first path.	Yes. Section 6: (PhoneFactor: Phone-Based Authentication) "With PhoneFactor, the user simply logs in with a username and password as normal." (at page 4)
<b>37. A system as in claim 20 wherein</b>	
an audit trail is created by the source.	Yes. Section 6: "Extensive logging is available for reporting and auditing." (at page 5)
<b>39. A system as in claim 25 wherein</b>	
a call is automatically placed to the telephone on behalf of the source and	Yes. Section 6: "The PhoneFactor Agent or SDK adds a second step to existing authentication processes. If the username and password are correct, an SSL request is sent to the PhoneFactor Service, which is housed in one of PhoneFactor's data centers around the world. The PhoneFactor Service places a phone call, sends a text message, or pushes a notification to the PhoneFactor App on the user's mobile device and processes the results. Finally, it returns success or failure to the application." (at page 6)
responses from the telephone are analyzed on behalf of the source.	Yes. See above.

<b>40.</b> A system as in <b>claim 39</b> wherein	
audit information is collected during the call.	Yes. Section 6: "Extensive logging is available for reporting and auditing." (at page 5)
<b>41.</b> A system as in <b>claim 39</b> wherein	
the source provides a communication function,	Yes. Section 6: "The PhoneFactor Agent or SDK adds a second step to existing authentication processes. If the username and password are correct, an SSL request is sent to the PhoneFactor Service, which is housed in one of PhoneFactor's data centers around the world. The PhoneFactor Service places a phone call, sends a text message, or pushes a notification to the PhoneFactor App on the user's mobile device and processes the results. Finally, it returns success or failure to the application." (at page 6)
and where the responses from the telephone exhibit a predetermined characteristic,	Yes. See above.
the user will be provided access to the communication function.	Yes. See above.

**Accused Product:**

- **PhoneFactor SMS (Text) Authentication Addition to Extended Edition Using Standard One-Time Password (OTP)**

**7,574,733:** SYSTEM AND METHOD OF USING THE PUBLIC SWITCHED TELEPHONE NETWORK IN PROVIDING AUTHENTICATION OR AUTHORIZATION FOR ONLINE TRANSACTIONS

<b>App No:</b> 11/153,764	<b>Priority from:</b> 60/170,808	<b>Inventor:</b> Woodhill	
<b>File Date:</b> 6/15/2005	<b>Priority date:</b> 12/15/1999	<b>Issue Date:</b> 8/11/2009	<b>Exp. Date:</b> 6/15/2023

<b>Claim</b>	<b>Found in Accused Product?</b>
<b>1. An authorization system comprising:</b>	
first and second electronic networks which are, at least in part, different;	Yes. Section 1: Different electronic networks (callouts "B" and "D1", "D2", "D3")
first and second terminals, with each terminal associated with a respective network;	Yes. Section 4: First and second terminals (callouts "A" and "B").
instructions for receiving an inquiry from the first terminal, via the first network;	Yes. Section 5: ("The Authentication Revolution: Phones Become the Leading Multi-Factor Authentication Device" PhoneFactor Whitepaper)  "If the username and password are correct, an SSL request is sent to the PhoneFactor Service, which is housed in one of PhoneFactor's data centers around the world." (at page 7)
instructions for establishing a communications link, on the second network, with the second terminal;	Yes. Section 5: "The PhoneFactor Service . . . sends a text message . . . [to] the user's mobile device..." (at page 7).
instructions for transmitting confirmatory information, via one of the networks, to the respective terminal with a request that the information be returned via the other network;	Yes. Section 7: ("PhoneFactor SMS (Text) Authentication Data Sheet")  "Instead of replying to the SMS text message, organizations can allow users to enter the <i>one-time passcode directly into the login interface.</i> " (emphasis added)
instructions for receiving the information, via the other network from a respective terminal; and	Yes. See above.

instructions, responsive to the received information for conducting an authorization process and for generating an authorization related indicium.	Yes. Section 5: "The PhoneFactor Service . . . sends a text message . . . [to] the user's mobile device and processes the results. Finally, it returns success or failure to the application." (at page 7)
<b>2. A system as in claim 1 wherein</b>	
the one network comprises a switched telephone system with a wireless portion.	Yes. Section 1: One network comprises a switched telephone system with wireless portion (callouts "D1", "D2", "D3").
<b>3. A system as in claim 2 wherein</b>	
the terminal associated with the one network comprises one of a land line telephone or a wireless phone.	Yes. Section 4: (www.Phonefactor.com home page) (callout "B") is a cell (wireless) phone.
<b>4. A system as in claim 2 wherein</b>	
the communications link of the one network is established simultaneously with another communications link using the other network.	Yes. Section 8: ("Comparing PhoneFactor to Other SMS Authentication Solutions")  "With PhoneFactor, users simply login with their username and password- just like they do today. <i>Instantly an SMS text message with a One-Time Password is sent to the user.</i> " (at page 1, emphasis added)
<b>5. A system as in claim 2 which includes</b>	
instructions for displaying the confirmatory information on the first terminal.	Yes. Section 7: ("PhoneFactor SMS (Text) Authentication Data Sheet")  "Instead of replying to the SMS text message, organizations can allow users to enter the <i>one-time passcode directly into the login interface.</i> " (emphasis added)